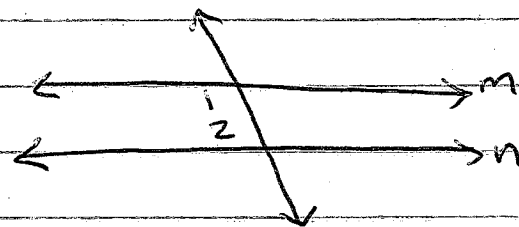


3.3 PROVE LINES ARE PARALLEL

COPY AND COMPLETE THE PROOFS

GIVEN: $m\angle 1 = 115^\circ$, $m\angle 2 = 65^\circ$

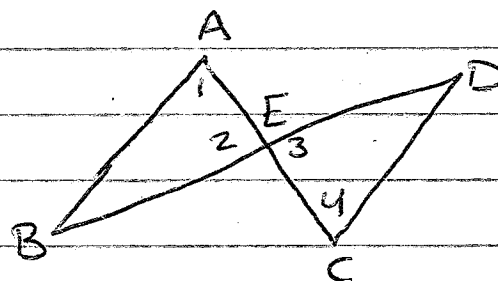
PROVE: $m \parallel n$



STATEMENTS	REASONS
1. $m\angle 1 = 115^\circ$, $m\angle 2 = 65^\circ$	GIVEN
2. $115^\circ + 65^\circ = 180^\circ$	ADDITION
3. $m\angle 1 + m\angle 2 = 180^\circ$	SUBSTITUTION PROP. OF EQUALITY
4. $\angle 1$ & $\angle 2$ are supplementary	DEF. OF SUPPLEMENTARY ANGLES
5. $m \parallel n$	Consecutive Interior Angles Converse

GIVEN: $\angle 1 \cong \angle 2$, $\angle 3 \cong \angle 4$

PROVE: $\overline{AB} \parallel \overline{CD}$



STATEMENTS	REASONS
1. $\angle 1 \cong \angle 2$, $\angle 3 \cong \angle 4$	GIVEN
2. $\angle 2 \cong \angle 3$	Vertical Angles Congruence Theorem
3. $\angle 1 \cong \angle 4$	Transitive Prop. of Angle Congruence
4. $\overline{AB} \parallel \overline{CD}$	Alternate Interior Angles Converse

Homework: 3.2-3.3 Practice Worksheet